Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Currently Amended) A method, comprising:

storing an entire higher definition television image in a memory;

reading locations from the memory at an image update rate to fetch first pixels in the image, which are vertically contiguous in the image;

vertically scaling the first pixels to produce in the memory a vertically scaled set of pixels representing scaling of the entire television image; and

after said vertically scaling of the entire image, reading the vertically scaled[[,]] set of pixels segments from the memory at an image display rate and horizontally scaling each the vertically scaled set of pixels horizontal pixel segment of the vertically scaled image at the image display rate to form a final two-dimensional scaled image of a lower definition.

3. (Previously Presented) The method of claim 2, further comprising:

storing, reading, and scaling a sequence of images from said higher definition television images representing video

2

sequence of images to said lower definition sequence of images;
and

displaying said lower definition sequence of images.

4. (Previously Presented) The method of claim 2 wherein said vertically scaling comprises reading X locations from a memory at an image update rate by reading a plurality of luminance planes in a pre-determined order.

5. (Previously Presented) The method of claim 2 in which the vertical scaling occurs at a rate that is smaller than a rate at which the horizontal scaling occurs.

6. (Currently Amended) An apparatus comprising:

a memory operable to store a higher definition television image;

a scaling element, configured to first fetch pixels of the higher definition television image and to vertically scale the [[X]] higher definition pixels to produce a vertically scaled image of contiguous, vertically scaled, horizontal pixels in the memory and to read pixels of the vertically scaled image only after the entire vertically scaled image has been formed, at an image display rate and horizontally scale pixels of the vertically scaled image at the image display rate to form a

3

lower definition image of pixel representing a final two-dimensional scaled image; and

a computer monitor operable to display the final two-dimensional scaled image.

7. (Previously Presented) The apparatus of claim 6 wherein the memory, and scaling element store, read, and scale a plurality of images in a high definition television video sequence of images.

8. (Previously Presented) The apparatus of claim 6 in which the scaling element comprises at least one integrated circuit.

9. (Previously Presented) The apparatus of claim 6 wherein the scaling element reads locations in the memory at an image update rate by reading a plurality of luminance planes in a pre-determined order.

10. (Previously Presented) The apparatus of claim 6 in which the vertical scaling occurs at a rate that is smaller than a rate at which the horizontal scaling occurs.

11. (Currently Amended) The apparatus of claim 6 wherein the memory~~first element~~ comprises a memory interface, an input

4

pixel formatting circuit, a pixel filtering circuit and an output pixel formatting circuit.

12. (Previously Presented) The apparatus of claim 11 in which the input pixel formatting circuit has three sets of luminance plane inputs.

13. (Previously Presented) The apparatus of claim 11 in which the pixel filtering circuit operates on both luminance and chrominance pixels, the pixel filtering circuit receiving and outputting horizontal pixel segments of a similar size.

14. (Previously Presented) The apparatus of claim 6 in which the scaling element includes a polyphase filter.

15. (Currently Amended) An article comprising a computer-readable medium which stores computer-executable instructions for scaling each high definition television image that appears in a video sequence of images for display on a computer monitor that displays downscaled images, the instructions causing a computer to:

storingstore an entire higher definition television image in a memory;

5

readingread locations from the memory at an image update

rate to fetch first pixels in the image, which are vertically

contiguous in the image;

vertically scalingscale the first pixels to produce in the

memory a vertically scaled set of pixels representing scaling of

the entire television image; and

after said vertically scaling of the entire image,

readingread the vertically scaled[[,]] set of pixels segments

from the memory at an image display rate and horizontally scale

scaling each the vertically scaled set of pixels horizontal

pixel segment of the vertically scaled image at the image

display rate to form a final two-dimensional scaled image of a

lower definition; and

display the final two-dimensional scaled image.

6